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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William P. Addiego

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CORNING INCORPORATED

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CORNING, NY 14831

EXAMINER

NGUYEN, CAM N

ART UNIT

PAPER NUMBER

1754

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/611,508  
Filing Date: June 30, 2003  
Appellant(s): ADDIEGO ET AL.

Randall S. Wayland  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**

DEC 01 2006

**GROUP 1700**

This is in response to the appeal brief filed August 04, 2006 appealing from the Office  
action mailed 3/29/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,793,728	DAVIES ET AL.	9-2004
4,407,733	BIRKENSTOCK ET AL.	10-1983

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1-3, 5-7, 10-14, & 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies et al., “hereinafter Davies”, (US Pat. 6,793,728 B1).

Davies discloses a composition for coating a metal substrate which is intended to be fabricated or overcoated, said composition comprising a silica binder and zinc powder and/or zinc alloy, etc. (see col. 17, claim 1). Suitable binder materials including the alkoxysilanes and/or orthosilicates, such as tetraalkoxysilane (see col. 7, ln 36- col. 8, ln 10).

Davies discloses the claimed supported catalyst, thus anticipates the claims.

B. Claims 4, 8-9, & 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al., “hereinafter Davies”, (US Pat. 6,793,728 B1), as applied to claims 1-3, 5-7, 10-14, & 17-19 above, and further in view of Birkenstock et al., “hereinafter Birkenstock”, (US Pat. 4,407,733).

Davies discloses a composition as described above, except for the following

differences.

Regarding claims 4 & 15, Davies does not disclose the claimed transition metals. However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have employed such known transition metals to achieve an effective catalyst in Davies because they are known as useful catalytically active metals for making supported catalysts, as evidenced by Birkenstock (see Birkenstock at col. 20, claims 11-27).

Regarding claims 8-9 & 16, Davies does not disclose the claimed inert support materials. It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have utilized such known catalyst support in Davies because alumina has been shown by Birkenstock as useful catalyst support material for preparing similar catalysts (see Birkenstock at col. 20, claim 12).

#### **(10) Response to Argument**

Applicants' arguments in the brief filed on August 04, 2006 have been fully considered, but not deemed persuasive because of the following reasons.

First, applicants argued, "Davies is directed to an impermeable and sacrificial primer coating paint layer which includes zinc powder or alloy. The primer paint is for application on a ship's hull for the purpose of protecting the steel hull by promoting a galvanic reaction. The zinc may also form galvanic reaction products ...All of the elements of claim 1 are not found in Davies et al. In particular, the primer coating paint layer is not a "material exhibiting catalytic activity" as required in claim 1, or a "catalytically active material as required in claim 13""

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(applicants' brief on page 2, last paragraph- page 3, first paragraph). Applicants' urging is not found persuasive because of the following reasons.

The instant claim 1 simply requires a supported catalyst, comprising: a solid support; and a porous coating on the solid support, the porous coating having as a major constituent a material exhibiting catalytic activity, the material exhibiting catalytic activity including a transition-containing material, the porous coating having a binder for holding the coating together and adhering the coating to the support. Davies et al. discloses "a composition for coating a metal substrate which is intended to be fabricated or overcoated, said composition comprising a silica binder and zinc powder and/or zinc alloy, etc." (see Davies at col. 17, claim 1). Suitable binder materials including the alkoxysilanes and/or orthosilicates, such as tetraalkoxysilane (see Davies at col. 7, ln 36- col. 8, ln 10). It is considered the rejection made over the Davies et al. reference is still proper because "zinc powder" or "zinc alloy" is a transition-containing material (or the material exhibiting catalytic activity) that applicants required in the instant claim 1. The claimed supported catalyst does not appear to be distinguished from the coating composition of the reference.

Second, applicants argued, "catalyst, as defined in Hacks' Chemical Dictionary, 4<sup>th</sup> Edition, is a substance that changes the speed of a reaction, but which is present in its original concentration after the reaction. Accordingly, the form of zinc (whether pure zinc or a zinc alloy used in US 6,793,728) is not a catalyst, i.e., it does not function as reaction promoter with its concentration remaining unchanged after the reaction. In particular, the only purpose disclosed in Davies for the zinc is for protecting the steel by a galvanic mechanism. To do so, some portion of the zinc present is sacrificial, i.e., is reacted thus its concentration does not remain

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unchanged. Accordingly, contrary to Examiner's assertion, the primer coating pain layer is not a "material exhibiting catalytic activity" (applicants' brief on page 3, second paragraph).

Applicants' urging is not found persuasive because of the following reasons.

The Examiner does not see patentable distinction between the claimed transition-containing material and zinc alloy disclosed by the reference. It is noted that "zinc" is being included among the suitable transition-containing materials required in the instant claims 3 & 14. Thus, no difference is seen.

Third, applicants urged, "claims 1 and 13 include the limitation that the material is "porous". Davies '728 does not teach a "porous material". Instead, it teaches that the interstices between the zinc particles be filled to create a solid paint layer... Paints, by their very nature, are nonporous... Therefore, Davies '728 does not anticipate the claimed invention, as it does not include all the claimed limitations of claim 1 or 13, and, in particular, it does not teach or suggest a *porous coating or mass*..." (applicants' brief on page 3, third paragraph).

It is considered the "filler" is not required because the reference teaches that "the zinc powder and/or alloy can be substantially the whole of the pigmentation of the coating" (see col. 4, lines 46-47), thus the disclosed coating composition is also a porous coating.

Last, applicants urged, "Birkenstock does nothing to remedy the basic deficiencies of Davies '728... Not only is it non-analogous art, but it simply offers no suggestion or motivation, whatsoever, of how to make a highly effective porous catalyst coating. According, none of the present claims are rendered obvious by the combination of Davies and Birkenstock." (applicants' brief on page 4).

It is considered the combination of the references is still proper and there is a motivation

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to combine the teachings of the references together because the claimed transition metals and support material are known as useful catalyst materials to make supported catalysts. While Davies does not disclose the claimed transition metals and inert support materials, however, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have employed such known transition metals and inert support materials to achieve an effective and useful catalyst material in Davies because they are known as useful catalytically active metals for making supported catalysts, as shown by Birkenstock (see Birkenstock at col. 20, claims 11-27).

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

#### **Contacts**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,



Cam N. Nguyen  
Primary Examiner  
Art Unit: 1754

Nguyen/cnn

November 25, 2006

Conferees:



Kathryn Gargas



STANLEY SILVERMAN